

Schreiber, David

113417

From: Ramirez, Delia
Sent: Tuesday, January 27, 2004 1:25 PM
To: Schreiber, David
Subject: case 09/993059

Hi,

I would like to request the following interference search: seq id 18 in the protein databases.

Thank you,

Delia M. Ramirez, Ph.D.
Patent Examiner
Recombinant Enzymes-Art Unit 1652
USPTO
1911 S. Clark Street, Crystal Mall 1, 10D06, Mail room 10D01
Arlington, VA 22202
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OM protein - protein search, using sw model

Run on: January 29, 2004, 12:39:14 ; Search time 21 Seconds

(without alignments)
852.262 Million cell updates/sec

Title: US-09-993-059-18

Perfect score: 2322

Sequence: 1 MOLRNPGLHGCALALRFLA.....RSHINPTGVLLQLSEKDEL 423

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA.*

- 1: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
- 2: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
- 3: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
- 4: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
- 5: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
- 6: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2293	98.8	429	1	US-07-602-824A-2
2	2293	98.8	429	1	US-07-602-608-3
3	2293	98.8	429	1	US-07-983-451-2
4	2293	98.8	429	1	US-08-261-578-3
5	2293	98.8	429	1	US-08-261-577-7
6	2289	98.6	429	3	US-08-261-577-9
7	2289	98.6	429	3	US-09-070-355-4
8	2275	98.0	428	6	5179023-4
9	2131	91.8	386	3	US-09-176-666-11
10	2131	91.8	387	3	US-09-176-666-10
11	2131	91.8	388	3	US-09-176-666-9
12	2131	91.8	389	3	US-09-176-666-8
13	2131	91.8	390	3	US-09-176-666-7
14	2131	91.8	391	3	US-09-176-666-6
15	2131	91.8	392	3	US-09-176-666-5
16	2131	91.8	393	3	US-09-176-666-4
17	2131	91.8	394	3	US-09-176-666-3
18	2131	91.8	396	3	US-09-176-666-2
19	2131	91.8	398	3	US-08-928-881-26
20	2131	91.8	398	4	US-09-176-666-1
21	2131	91.8	398	4	US-09-543-921-26
22	2131	91.8	398	4	US-09-266-014-4
23	2131	91.8	398	4	US-09-491-753-26
24	2110	90.9	381	3	US-09-176-666-12
25	1061	45.7	406	3	US-09-070-355-2
26	1054	45.4	405	1	US-08-406-070-2
27	952.5	41.0	411	1	US-07-602-608-2

28	952.5	41.0	411	1	US-08-261-578-2	Sequence 2, Appli
29	952.5	41.0	411	3	US-09-070-356-3	Sequence 3, Appli
30	945.5	40.7	411	1	US-07-602-824A-3	Sequence 3, Appli
31	945.5	40.7	411	1	US-07-983-451-3	Sequence 3, Appli
32	945.5	40.7	411	1	US-08-261-577-8	Sequence 8, Appli
33	710.5	30.6	420	4	US-08-113-890-2	Sequence 2, Appli
34	687.5	29.6	363	1	US-08-488-961-4	Sequence 4, Appli
35	687.5	29.6	363	3	US-08-973-297-4	Sequence 4, Appli
36	687.5	29.6	363	5	PCT-US96-06511-4	Sequence 4, Appli
37	680.5	29.3	363	1	US-08-488-961-7	Sequence 7, Appli
38	680.5	29.3	363	3	US-08-973-297-7	Sequence 7, Appli
39	680.5	29.3	363	5	PCT-US96-06511-7	Sequence 7, Appli
40	679.5	29.3	411	3	US-09-070-356-6	Sequence 6, Appli
41	600	25.8	404	1	US-07-602-824A-4	Sequence 4, Appli
42	600	25.8	404	1	US-07-602-608-4	Sequence 4, Appli
43	600	25.8	404	1	US-07-983-451-4	Sequence 4, Appli
44	600	25.8	404	1	US-08-261-578-4	Sequence 4, Appli
45	600	25.8	404	1	US-08-261-577-10	Sequence 10, Appli

ALIGNMENTS

RESULT 1
US-07-602-824A-2
; Sequence 2, Application US/07602824A
; Patent No. 5356804
; GENERAL INFORMATION:
; APPLICANT: Deenick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE alpha-GALACTOSIDASE A
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESS: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/602,824A
; FILING DATE: 24-OCT-1990
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-602-824A-2

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MOLRNPGLHGCALALRFLALVSDIPGARALDNLGARTPTMGWLHWRFCMNCDCQEEP	60
DB	1	MOLRNPGLHGCALALRFLALVSDIPGARALDNLGARTPTMGWLHWRFCMNCDCQEEP	60

Qy 61 DSCISEKLFMEAEALVSEGWKADAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Db 61 DSCISEKLFMEAEALVSEGWKADAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Qy 121 ANYVHSGKLGIYADVGNKTCAGPGSGFYDYIDAOQTFADMGVDLLKFGDCYCDLSLENL 180
Db 121 ANYVHSGKLGIYADVGNKTCAGPGSGFYDYIDAOQTFADMGVDLLKFGDCYCDLSLENL 180
Qy 181 ADGKXMSLALNRTRGSIIVSVCEWPLVMPFQKNEYTEIRQYCNHWRNFADIDDSWSIK 240
Db 181 ADGKXMSLALNRTRGSIIVSVCEWPLVMPFQKNEYTEIRQYCNHWRNFADIDDSWSIK 240
Qy 241 SILDWTSEFQERIVDVAGPGGNDPDLVIGNFGLSWQVQVQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSEFQERIVDVAGPGGNDPDLVIGNFGLSWQVQVQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVITAINODPLGKGYOLROGDNFEVWERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVITAINODPLGKGYOLROGDNFEVWERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNACPFITQLLPVKRKLGFYEWTSRLASHINPTGTVLLOL 417
Db 361 GPRSYTIAVASLGKGVACNACPFITQLLPVKRKLGFYEWTSRLASHINPTGTVLLOL 417

RESULT 2

US-07-602-608-3
; Sequence 3, Application US/07602608
; Patent No. 5382524
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David P.
; APPLICANT: Ioannou, Yiannis A.
; APPLICANT: Wang, Anne M.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE ALPHA-N-ACETILGALACTOSAMINIDASE
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/602,608
; FILING DATE: 24-OCT-1990
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-008
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-07-602-608-3

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;

Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MQLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFMCNLDCCDEEP 60
Db 1 MQLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFMCNLDCCDEEP 60
Qy 61 DSCISEKLFMEAEALVSEGWKADAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Db 61 DSCISEKLFMEAEALVSEGWKADAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Qy 121 ANYVHSGKLGIYADVGNKTCAGPGSGFYDYIDAOQTFADMGVDLLKFGDCYCDLSLENL 180
Db 121 ANYVHSGKLGIYADVGNKTCAGPGSGFYDYIDAOQTFADMGVDLLKFGDCYCDLSLENL 180
Qy 181 ADGKXMSLALNRTRGSIIVSVCEWPLVMPFQKNEYTEIRQYCNHWRNFADIDDSWSIK 240
Db 181 ADGKXMSLALNRTRGSIIVSVCEWPLVMPFQKNEYTEIRQYCNHWRNFADIDDSWSIK 240
Qy 241 SILDWTSEFQERIVDVAGPGGNDPDLVIGNFGLSWQVQVQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSEFQERIVDVAGPGGNDPDLVIGNFGLSWQVQVQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVITAINODPLGKGYOLROGDNFEVWERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVITAINODPLGKGYOLROGDNFEVWERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNACPFITQLLPVKRKLGFYEWTSRLASHINPTGTVLLOL 417
Db 361 GPRSYTIAVASLGKGVACNACPFITQLLPVKRKLGFYEWTSRLASHINPTGTVLLOL 417

RESULT 3

US-07-983-451-2
; Sequence 2, Application US/07983451
; Patent No. 5401650
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David P.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: Cloning and Expression of Biologically
; TITLE OF INVENTION: Active alpha-Galactosidase A
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/983,451
; FILING DATE: 30-NOV-1992
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 07/983,451
; REFERENCE/DOCKET NUMBER: 6923-030
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-790-9090
; TELEFAX: 212-869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-983-451-2

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MQLRNPHELHGCALALRFALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCQDEP 60
DB 1 MQLRNPHELHGCALALRFALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCQDEP 60

QY 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQPFPHGIROL 120
DB 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQPFPHGIROL 120

QY 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCSLENL 180
DB 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCSLENL 180

QY 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIROQCNHWRNFADIDDSWKSIT 240
DB 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIROQCNHWRNFADIDDSWKSIT 240

QY 241 SILDWTSTNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSTNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300

QY 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360
DB 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360

QY 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 4
US-08-261-578-3
; Sequence 3, Application US/08261578
; Patent No. 5491075
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; APPLICANT: Wang, Anne M.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE ALPHA-N-ACETYL GALACTOSAMINIDASE
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/261,578
; FILING DATE: 17-JUN-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/602,608
; FILING DATE: 24-OCT-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-008
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8664/9741
; TELEX: 66141 PENNIE

INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 429 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: protein
US-08-261-578-3

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MQLRNPHELHGCALALRFALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCQDEP 60
DB 1 MQLRNPHELHGCALALRFALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCQDEP 60

QY 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQPFPHGIROL 120
DB 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQPFPHGIROL 120

QY 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCSLENL 180
DB 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCSLENL 180

QY 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIROQCNHWRNFADIDDSWKSIT 240
DB 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIROQCNHWRNFADIDDSWKSIT 240

QY 241 SILDWTSTNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSTNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300

QY 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360
DB 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360

QY 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 5
US-08-261-577-7
; Sequence 7, Application US/08261577
; Patent No. 5580757
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: Cloning and Expression of Biologically
; TITLE OF INVENTION: Active alpha-Galactosidase A
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/261,577
; FILING DATE: 17-JUN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-042
; REFERENCE/DOCKET NUMBER: 6923-042

TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 429 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-261-577-7

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MQLRNPELHGCALALRFLALVSDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60
DB 1 MQLRNPELHGCALALRFLALVSDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60
QY 61 DSCISEKLFMEAEMLVSEGWKDGAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
DB 61 DSCISEKLFMEAEMLVSEGWKDGAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
QY 121 ANYVHSGKLGIGIYADVGNKTCAGFPGSGFYDIDAQTFADWGVLDLLKPDGCYCDSENL 180
DB 121 ANYVHSGKLGIGIYADVGNKTCAGFPGSGFYDIDAQTFADWGVLDLLKPDGCYCDSENL 180
QY 181 ADGYKMSLALNTRGSIIVSCWPLYMFPQKPNYTEIRQYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNTRGSIIVSCWPLYMFPQKPNYTEIRQYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSEFQRIYDVAGPGGNDPDLVIGNFGLSWQVQVQVQVQVQVQVQVQVQVQV 300
DB 241 SILDWTSEFQRIYDVAGPGGNDPDLVIGNFGLSWQVQVQVQVQVQVQVQVQVQVQ 300
QY 301 RHISPOKALLQDKVIAINQDPLGKQYQVQVQVQVQVQVQVQVQVQVQVQVQVQVQV 360
DB 301 RHISPOKALLQDKVIAINQDPLGKQYQVQVQVQVQVQVQVQVQVQVQVQVQVQVQV 360
QY 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 6
US-08-261-577-9
Sequence 9, Application US/08261577
Patent No. 5580757
GENERAL INFORMATION:
APPLICANT: Desnick, Robert J.
APPLICANT: Bishop, David P.
APPLICANT: Ioannou, Viannis A.
TITLE OF INVENTION: Cloning and Expression of Biologically
TITLE OF INVENTION: Active alpha-Galactosidase A
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: USA
ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/261,577
FILING DATE: 17-JUN-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:

NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 6923-042
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 429 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
US-08-261-577-9
Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MQLRNPELHGCALALRFLALVSDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60
DB 1 MQLRNPELHGCALALRFLALVSDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60
QY 61 DSCISEKLFMEAEMLVSEGWKDGAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
DB 61 DSCISEKLFMEAEMLVSEGWKDGAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
QY 121 ANYVHSGKLGIGIYADVGNKTCAGFPGSGFYDIDAQTFADWGVLDLLKPDGCYCDSENL 180
DB 121 ANYVHSGKLGIGIYADVGNKTCAGFPGSGFYDIDAQTFADWGVLDLLKPDGCYCDSENL 180
QY 181 ADGYKMSLALNTRGSIIVSCWPLYMFPQKPNYTEIRQYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNTRGSIIVSCWPLYMFPQKPNYTEIRQYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSEFQRIYDVAGPGGNDPDLVIGNFGLSWQVQVQVQVQVQVQVQVQVQVQV 300
DB 241 SILDWTSEFQRIYDVAGPGGNDPDLVIGNFGLSWQVQVQVQVQVQVQVQVQVQVQ 300
QY 301 RHISPOKALLQDKVIAINQDPLGKQYQVQVQVQVQVQVQVQVQVQVQVQVQVQVQV 360
DB 301 RHISPOKALLQDKVIAINQDPLGKQYQVQVQVQVQVQVQVQVQVQVQVQVQVQVQV 360
QY 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 7
US-09-070-356-4
Sequence 4, Application US/09070356
Patent No. 6228631
GENERAL INFORMATION:
APPLICANT: Alex Zhu
APPLICANT: Jack Goldstein
TITLE OF INVENTION: Recombinant a-N-
TITLE OF INVENTION: Acetylglucosaminidase
TITLE OF INVENTION: Enzyme and cDNA Encoding
TITLE OF INVENTION: Said Enzyme
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Amster, Rothstein & Ebenstein
STREET: 90 Park Avenue
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10016
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch 1.44 Mb storage diskette
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: Word Processor (ASCII)
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/070,356
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA: 08/037,248
 APPLICATION NUMBER: 08/037,248
 FILING DATE: March 26, 1993
 ATTORNEY/AGENT INFORMATION:
 NAME: Pasqualini, Patricia A.
 REGISTRATION NUMBER: 34,894
 REFERENCE/DOCKET NUMBER: 63475/12
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (212) 697-5995
 TELEFAX: (212) 286-0854 or 286-0082
 TELEX: TWX 710-581-4766
 INFORMATION FOR SEQ ID NO: 4:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 429
 TYPE: amino acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE:
 DESCRIPTION: cDNA to mRNA
 HYPOTHETICAL: no
 ANTI-SENSE: yes
 FRAGMENT TYPE:
 ORIGINAL SOURCE:
 ORGANISM: human
 STRAIN:
 INDIVIDUAL ISOLATE:
 DEVELOPMENTAL STAGE:
 HAPLOTYPE:
 TISSUE TYPE:
 CELL TYPE:
 CELL LINE:
 ORGANELLER:
 IMMEDIATE SOURCE: library
 POSITION IN GENOME: unknown
 MAP POSITION:
 UNITS:
 FEATURE:
 NAME/KEY: human a-galactosidase
 LOCATION:
 IDENTIFICATION METHOD:
 OTHER INFORMATION:
 PUBLICATION INFORMATION:
 AUTHORS: Calhoun et al
 TITLE: Fabry Disease: Isolation of a cDNA
 TITLE: Clone Encoding Human a-Galactosidase A
 JOURNAL: Proceedings of the National Academy
 JOURNAL: of Science USA
 VOLUME: 82
 PAGES: 7364-7368
 DATE: 1985
 DOCUMENT NUMBER:
 FILING DATE:
 PUBLICATION DATE:
 RELEVANT RESIDUES IN SEQ ID NO: 4

Query Match 98.6%; Score 2289; DB 3; Length 429;
 Best Local Similarity 99.0%; Pred. No. 7.7e-232;
 Matches 413; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLRNPHELGCALALRFLALVSWDIPGARALDNLGLARTPTMGWLHWRFCNLDQCEP 60
 DB 1 MOLRNPHELGCALALRFLALVSWDIPGARALDNLGLARTPTMGWLHWRFCNLDQCEP 60
 QY 61 DSCISEKLFMEAEMLVSEGWKADGYEYLICDDCWMAQDSEGRLOADPQPFPHGIROL 120
 DB 61 DSCISEKLFMEAEMLVSEGWKADGYEYLICDDCWMAQDSEGRLOADPQPFPHGIROL 120
 QY 121 ANYVHSGKLGKIYADVGNKTCAGPPSGFYDYIDAQTFADWGVLLKFDGVCDSLENL 180

DB 121 ANYVHSGKLGKIYADVGNKTCAGPPSGFYDYIDAQTFADWGVLLKFDGVCDSLENL 180
 QY 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFKPNYTEIRQYCNHWRNPADIDDSWKSIX 240
 DB 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFKPNYTEIRQYCNHWRNPADIDDSWKSIX 240
 QY 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOVTOMALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOVTOMALWAIMAAPLFMSNDL 300
 QY 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQBIG 360
 DB 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQBIG 360
 QY 361 GPRSYTIAVASLGKGVACNCPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
 DB 361 GPRSYTIAVASLGKGVACNCPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 8
 5179023-4
 ; Patent No. 5179023
 ; APPLICANT: CALHOUN, DAVID H.; COPPOLA, GEORGE
 ; TITLE OF INVENTION: RECOMBINANT a-GALACTOSIDASE A. THERAPY
 ; FOR FABRY DISEASE
 ; NUMBER OF SEQUENCES: 4
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/07/520,312
 ; FILING DATE: 07-MAY-1990
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 328,421
 ; FILING DATE: 24-MAR-1989
 ; SEQ ID NO: 4:
 ; LENGTH: 428
 5179023-4

Query Match 98.0%; Score 2275; DB 6; Length 428;
 Best Local Similarity 99.3%; Pred. No. 2.3e-230;
 Matches 414; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MOLRNPHELGCALALRFLALVSWDIPGARALDNLGLARTPTMGWLHWRFCNLDQCEP 60
 DB 1 MOLRNPHELGCALALRFLALVSWDIPGARALDNLGLARTPTMGWLHWRFCNLDQCEP 60
 QY 61 DSCISEKLFMEAEMLVSEGWKADGYEYLICDDCWMAQDSEGRLOADPQPFPHGIROL 120
 DB 61 DSCISEKLFMEAEMLVSEGWKADGYEYLICDDCWMAQDSEGRLOADPQPFPHGIROL 120
 QY 121 ANYVHSGKLGKIYADVGNKTCAGPPSGFYDYIDAQTFADWGVLLKFDGVCDSLENL 180
 DB 121 ANYVHSGKLGKIYADVGNKTCAGPPSGFYDYIDAQTFADWGVLLKFDGVCDSLENL 180
 QY 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFKPNYTEIRQYCNHWRNPADIDDSWKSIX 240
 DB 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFKPNYTEIRQYCNHWRNPADIDDSWKSIX 240
 QY 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOVTOMALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOVTOMALWAIMAAPLFMSNDL 300
 QY 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQBIG 360
 DB 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQBIG 360
 QY 361 GPRSYTIAVASLGKGVACNCPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
 DB 361 GPRSYTIAVASLGKGVACNCPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 9
 US-09-176-666-11
 ; Sequence 11, Application US/09176666

```
Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 11
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-11

Query Match          91.8%; Score 2131; DB 3; Length 386;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60

Qy 92 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120

Qy 152 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180

Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 240

Qy 272 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLGKQGYQL 331
Db 241 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLGKQGYQL 300

Qy 332 RQGNFVWERPLSGLAWAVAMINROEIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 391
Db 301 RQGNFVWERPLSGLAWAVAMINROEIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 360

Qy 392 RKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 RKLGFYEWTSRLRSHINPTGTVLQL 386

RESULT 10
US-09-176-666-10
; Sequence 10, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-10

Query Match          91.8%; Score 2131; DB 3; Length 387;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60

Qy 92 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120

Qy 152 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180

Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 240

Qy 272 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLGKQGYQL 331
Db 241 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLGKQGYQL 300

Qy 332 RQGNFVWERPLSGLAWAVAMINROEIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 391
Db 301 RQGNFVWERPLSGLAWAVAMINROEIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 360

Qy 392 RKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 RKLGFYEWTSRLRSHINPTGTVLQL 386

RESULT 11
US-09-176-666-9
; Sequence 9, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 9
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-9

Query Match          91.8%; Score 2131; DB 3; Length 388;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60

Qy 92 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWMAQRDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120

Qy 152 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWDLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180

Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGWNDPDMVLIG 240
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QY 272 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 12
US-09-176-666-8
; Sequence 8, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 8
; LENGTH: 389
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-176-666-8

Query Match 91.8%; Score 2131; DB 3; Length 389;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTMGWLHWRFCNLDCEPDSCISEKLFMEMAELMVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWRFCNLDCEPDSCISEKLFMEMAELMVSEGWKADAGYEYLCI 60
QY 92 DDCWMAPOQDSERGLQADPQPHGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 151
DB 61 DDCWMAPOQDSERGLQADPQPHGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 120
QY 152 YDIDAQTFADGWVLLKFGDCYCDSENLDAGYKHSALNRTGRSIVVSCWPLWMP 211
DB 121 YDIDAQTFADGWVLLKFGDCYCDSENLDAGYKHSALNRTGRSIVVSCWPLWMP 180
QY 212 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 271
DB 181 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 240
QY 272 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 13
US-09-176-666-7
; Sequence 7, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
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; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 7
; LENGTH: 390
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-176-666-7

Query Match 91.8%; Score 2131; DB 3; Length 390;
Best Local Similarity 100.0%; Pred. No. 2.7e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTMGWLHWRFCNLDCEPDSCISEKLFMEMAELMVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWRFCNLDCEPDSCISEKLFMEMAELMVSEGWKADAGYEYLCI 60
QY 92 DDCWMAPOQDSERGLQADPQPHGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 151
DB 61 DDCWMAPOQDSERGLQADPQPHGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 120
QY 152 YDIDAQTFADGWVLLKFGDCYCDSENLDAGYKHSALNRTGRSIVVSCWPLWMP 211
DB 121 YDIDAQTFADGWVLLKFGDCYCDSENLDAGYKHSALNRTGRSIVVSCWPLWMP 180
QY 212 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 271
DB 181 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 240
QY 272 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSNQOVTOMALWAIMAPLMSNDLRHSPOAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFVWERPLSGLAWAVAMINROBGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 14
US-09-176-666-6
; Sequence 6, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 391
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-176-666-6

Query Match 91.8%; Score 2131; DB 3; Length 391;
Best Local Similarity 100.0%; Pred. No. 2.7e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 32 LDNGLARTPTGWLHWRPFCNLDCEEPDSCISEKLFMEAEMLVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTGWLHWRPFCNLDCEEPDSCISEKLFMEAEMLVSEGWKADAGYEYLCI 60
QY 92 DDCWAPQDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
DB 61 DDCWAPQDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
QY 152 YDIDAQTPADGWVLLKFDGVCYDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 211
DB 121 YDIDAQTPADGWVLLKFDGVCYDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 180
QY 212 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNQERIVDVAGPGWNDPDMLVIG 271
DB 181 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNQERIVDVAGPGWNDPDMLVIG 240
QY 272 NFGLSWNOQVTQMALWAIWAAPLFMSNDLRHISPOAKALLQDKVDVIAINQDPLGKQGYQL 331
DB 241 NFGLSWNOQVTQMALWAIWAAPLFMSNDLRHISPOAKALLQDKVDVIAINQDPLGKQGYQL 300
QY 332 RQGNFEVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPAFCFITOLLPVK 391
DB 301 RQGNFEVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPAFCFITOLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

RESULT 15

US-09-176-666-5
; Sequence 5, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; TITLE OF INVENTION: FERRY DISEASE
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; EARLIER FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 5
; LENGTH: 392
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-5

Query Match 91.8%; Score 2131; DB 3; Length 392;
Best Local Similarity 100.0%; Pred. No. 2.7e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTGWLHWRPFCNLDCEEPDSCISEKLFMEAEMLVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTGWLHWRPFCNLDCEEPDSCISEKLFMEAEMLVSEGWKADAGYEYLCI 60
QY 92 DDCWAPQDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
DB 61 DDCWAPQDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
QY 152 YDIDAQTPADGWVLLKFDGVCYDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 211
DB 121 YDIDAQTPADGWVLLKFDGVCYDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 180
QY 212 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNQERIVDVAGPGWNDPDMLVIG 271
DB 181 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNQERIVDVAGPGWNDPDMLVIG 240
QY 272 NFGLSWNOQVTQMALWAIWAAPLFMSNDLRHISPOAKALLQDKVDVIAINQDPLGKQGYQL 331
DB 241 NFGLSWNOQVTQMALWAIWAAPLFMSNDLRHISPOAKALLQDKVDVIAINQDPLGKQGYQL 300

QY 332 RQGNFEVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPAFCFITOLLPVK 391
DB 301 RQGNFEVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPAFCFITOLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

Search completed: January 29, 2004, 12:43:18
Job time : 23 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 29, 2004, 12:41:44 ; Search time 40 Seconds
(without alignments)
2197.740 Million cell updates/sec

Title: US-09-993-059-18
Perfect score: 2322
Sequence: 1 MOLRNPGLGCAALRFLA.....RSHINPTGVLLQSEKDEL 423

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 789580 seqs, 207824079 residues

Total number of hits satisfying chosen parameters: 789580

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA:
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
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17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2322	100.0	423	12	US-10-602-219-18
2	2322	100.0	423	15	US-10-103-327-18
3	2310	99.5	427	12	US-10-602-219-14
4	2310	99.5	427	15	US-10-103-327-14
5	2308	99.4	431	12	US-10-602-219-10
6	2308	99.4	431	15	US-10-103-327-10
7	2306	99.3	435	12	US-10-602-219-6
8	2306	99.3	435	15	US-10-103-327-6
9	2293	98.8	417	12	US-10-602-219-16
10	2293	98.8	417	15	US-10-103-327-16
11	2293	98.8	421	12	US-10-602-219-12
12	2293	98.8	421	15	US-10-103-327-12
13	2293	98.8	478	12	US-10-131-410-106
14	2288	98.5	424	12	US-10-602-219-8
15	2288	98.5	424	15	US-10-103-327-8

Sequence 4, Appl
Sequence 4, Appl
Sequence 22, Appl
Sequence 20, Appl
Sequence 20, Appl
Sequence 20, Appl
Sequence 26, Appl
Sequence 20, Appl
Sequence 4, Appl
Sequence 4, Appl
Sequence 6525, Ap
Sequence 9014, Ap
Sequence 8170, Ap
Sequence 9724, Ap
Sequence 13129, A
Sequence 8616, A
Sequence 17876, A
Sequence 17883, A
Sequence 17264, A
Sequence 1294, Ap
Sequence 30, Appl
Sequence 9180, Ap
Sequence 10564, A
Sequence 26, Appl
Sequence 24, Appl
Sequence 8621, Ap
Sequence 13, Appl

US-10-602-219-4
US-10-103-327-4
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US-10-103-327-22
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US-10-360-101-202
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US-10-165-968-4
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US-10-156-761-9014
US-10-156-761-8170
US-10-156-761-9724
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US-10-369-493-17264
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US-10-156-761-9180
US-10-369-493-10564
US-10-602-219-26
US-10-103-327-26
US-10-602-219-24
US-10-103-327-24
US-10-156-761-8621
US-09-955-732-13

ALIGNMENTS

RESULT 1
US-10-602-219-18
; Sequence 18, Application US/10602219
; Publication No: US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANIENT EXPRESSI
; FILE REFERENCE: LSBC-087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 18

LENGTH: 423
TYPE: PRT
ORGANISM: Homo sapiens
US-10-602-219-18

Query Match 100.0%; Score 2322; DB 12; Length 423;
Best Local Similarity 100.0%; Pred. No. 8.6e-230;
Matches 423; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLNPEHLGALALRALVSWDIPCARALDNGLARTPTMGWLHWFRCNLDCCOEP 60
DB 1 MOLNPEHLGALALRALVSWDIPCARALDNGLARTPTMGWLHWFRCNLDCCOEP 60
QY 61 DSCISEKLFMEAEALVSEGWKADGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
DB 61 DSCISEKLFMEAEALVSEGWKADGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
QY 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVDLLKFDGCGYCDLSLENL 180
DB 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVDLLKFDGCGYCDLSLENL 180
QY 181 ADGYKMSLALNRTGRSIVVSCWPLMYMFPQKNTYIROYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNRTGRSIVVSCWPLMYMFPQKNTYIROYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSPQERIVDVAGPGGNDPDMVLVGNFGLSNQVQTMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSPQERIVDVAGPGGNDPDMVLVGNFGLSNQVQTMALWAIMAAPLFMSNDL 300
QY 301 RHISPOKALLQDKVIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQIEG 360
DB 301 RHISPOKALLQDKVIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQIEG 360
QY 361 GPRSYTTIYASLKGKGVACNPACFTITOLLPVKRLGIFYEWTSLRSHINPTGTVLLQSEK 420
DB 361 GPRSYTTIYASLKGKGVACNPACFTITOLLPVKRLGIFYEWTSLRSHINPTGTVLLQSEK 420
QY 421 DEL 423
DB 421 DEL 423

RESULT 2

US-10-103-327-18
Sequence 18, Application US/10103327
Publication No. US20030106095A1

GENERAL INFORMATION:
APPLICANT: GARGER, Stephen A.
APPLICANT: TURPEN, Thomas H.
APPLICANT: KUMAGAI, Monto H.
TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
FILE REFERENCE: 008010087CPUS06
CURRENT APPLICATION NUMBER: US/10/103,327
CURRENT FILING DATE: 2002-03-20
PRIOR APPLICATION NUMBER: US/09/993,059
PRIOR FILING DATE: 2001-11-13
NUMBER OF SEQ ID NOS: 37
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 18
LENGTH: 423
TYPE: PRT
ORGANISM: Homo sapiens
US-10-103-327-18

Query Match 100.0%; Score 2322; DB 15; Length 423;
Best Local Similarity 100.0%; Pred. No. 8.6e-230;
Matches 423; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLNPEHLGALALRALVSWDIPCARALDNGLARTPTMGWLHWFRCNLDCCOEP 60
DB 1 MOLNPEHLGALALRALVSWDIPCARALDNGLARTPTMGWLHWFRCNLDCCOEP 60

QY 61 DSCISEKLFMEAEALVSEGWKADGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
DB 61 DSCISEKLFMEAEALVSEGWKADGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
QY 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVDLLKFDGCGYCDLSLENL 180
DB 121 ANYVHSGKLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVDLLKFDGCGYCDLSLENL 180
QY 181 ADGYKMSLALNRTGRSIVVSCWPLMYMFPQKNTYIROYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNRTGRSIVVSCWPLMYMFPQKNTYIROYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSPQERIVDVAGPGGNDPDMVLVGNFGLSNQVQTMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSPQERIVDVAGPGGNDPDMVLVGNFGLSNQVQTMALWAIMAAPLFMSNDL 300
QY 301 RHISPOKALLQDKVIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQIEG 360
DB 301 RHISPOKALLQDKVIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQIEG 360
QY 361 GPRSYTTIYASLKGKGVACNPACFTITOLLPVKRLGIFYEWTSLRSHINPTGTVLLQSEK 420
DB 361 GPRSYTTIYASLKGKGVACNPACFTITOLLPVKRLGIFYEWTSLRSHINPTGTVLLQSEK 420
QY 421 DEL 423
DB 421 DEL 423

RESULT 3

US-10-602-219-14
Sequence 14, Application US/10602219
Publication No. US20040016021A1
GENERAL INFORMATION:
APPLICANT: Large Scale Biology Corporation
APPLICANT: Turpen, Thomas H.
APPLICANT: Pogue, Gregory P.
APPLICANT: Erwin, Robert L.
APPLICANT: Grill, Laurence K.
TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
FILE REFERENCE: LSBC-0087-CP09B
CURRENT APPLICATION NUMBER: US/10/602,219
CURRENT FILING DATE: 2003-06-23
PRIOR APPLICATION NUMBER: 09/993,059
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: 09/626,127
PRIOR FILING DATE: 2000-07-26
PRIOR APPLICATION NUMBER: 09/316,572
PRIOR FILING DATE: 1999-05-21
PRIOR APPLICATION NUMBER: 08/324,003
PRIOR FILING DATE: 1994-10-14
PRIOR APPLICATION NUMBER: 08/176,414
PRIOR FILING DATE: 1993-12-29
PRIOR APPLICATION NUMBER: 07/997,733
PRIOR FILING DATE: 1992-12-30
PRIOR APPLICATION NUMBER: 08/184,237
PRIOR FILING DATE: 1994-01-19
PRIOR APPLICATION NUMBER: 07/923,692
PRIOR FILING DATE: 1992-07-31
PRIOR APPLICATION NUMBER: 07/600,244
PRIOR FILING DATE: 1990-10-22
PRIOR APPLICATION NUMBER: 07/641,617
PRIOR FILING DATE: 1991-01-16
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 32
SOFTWARE: Patentin version 3.2
SEQ ID NO 14
LENGTH: 427
TYPE: PRT
ORGANISM: Homo sapiens
US-10-602-219-14

Query Match

99.5%; Score 2310; DB 12; Length 427;

Best Local Similarity 99.1%; Pred. No. 1.5e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

Qy 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60
Db 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIROL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIROL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDSENL 180
Db 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDSENL 180
Qy 181 ADGYKMSLALNRTGRSIVYSCWPLNMYWPPKPNYTEIROYCNHWRNFADIDDSWKSIX 240
Db 181 ADGYKMSLALNRTGRSIVYSCWPLNMYWPPKPNYTEIROYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSENOERIVDVAGPGGWNDDMLVGNFGLSWNQVOTOMALWAIMAAPLFMSNDL 300
Db 241 SILDWTSENOERIVDVAGPGGWNDDMLVGNFGLSWNQVOTOMALWAIMAAPLFMSNDL 300
Qy 301 RHISFOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPPLSGLAWAVAMINROEIG 360
Db 301 RHISFOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Qy 418 -SEKDEL 423
Db 421 MSEKDEL 427

RESULT 4

US-10-103-327-14
; Sequence 14, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KUNAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; TITLE OF INVENTION: PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: 008010087CFUS06
; CURRENT APPLICATION NUMBER: US/10/103,327
; PRIOR FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 427
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-14

Query Match 99.5%; Score 2310; DB 15; Length 427;
Best Local Similarity 99.1%; Pred. No. 1.5e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 4; Gaps 1;
Qy 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60
Db 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIROL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIROL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDSENL 180

Db 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDSENL 180
Qy 181 ADGYKMSLALNRTGRSIVYSCWPLNMYWPPKPNYTEIROYCNHWRNFADIDDSWKSIX 240
Db 181 ADGYKMSLALNRTGRSIVYSCWPLNMYWPPKPNYTEIROYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSENOERIVDVAGPGGWNDDMLVGNFGLSWNQVOTOMALWAIMAAPLFMSNDL 300
Db 241 SILDWTSENOERIVDVAGPGGWNDDMLVGNFGLSWNQVOTOMALWAIMAAPLFMSNDL 300
Qy 301 RHISFOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPPLSGLAWAVAMINROEIG 360
Db 301 RHISFOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Qy 418 -SEKDEL 423
Db 421 MSEKDEL 427

RESULT 5

US-10-602-219-10
; Sequence 10, Application US/10602219
; Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: LSBC-0087-CF09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; PRIOR FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 10
; LENGTH: 431
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-10

Query Match 99.4%; Score 2308; DB 12; Length 431;
Best Local Similarity 98.1%; Pred. No. 2.4e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 8; Gaps 1;
Qy 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60
Db 1 MOLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTGWLHWFMCNLDQCEEP 60

QY 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGVDLKFDGCYCDLSLENL 180
 DB 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGVDLKFDGCYCDLSLENL 180
 QY 181 ADGKXMSALNRTGRSIVYSCWPLVYMPFQKPNYTEIROYCNHWRNFADIDDSWKSIIK 240
 DB 181 ADGKXMSALNRTGRSIVYSCWPLVYMPFQKPNYTEIROYCNHWRNFADIDDSWKSIIK 240
 QY 241 SILDWTSFNQRIIVDVAGPGWNPDMVLVGNFGLSNQOQVTOMALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSFNQRIIVDVAGPGWNPDMVLVGNFGLSNQOQVTOMALWAIMAAPLFMSNDL 300
 QY 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQIG 360
 DB 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQIG 360
 QY 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQ---- 416
 DB 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQOLENT 420
 QY 417 ----LSEKDEL 423
 DB 421 MQMSLSEKDEL 431

RESULT 6

US-10-103-327-10

; Sequence 10, Application US/10103327

; Publication No. US20030106095A1

; GENERAL INFORMATION:

; APPLICANT: GARGER, Stephen A.

; APPLICANT: TURPEN, Thomas H.

; APPLICANT: KUNAGAI, Monte H.

; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN

; FILE OF INVENTION: PLANTS BY TRANSIENT EXPRESSION

; FILE REFERENCE: 008010087CPUS06

; CURRENT APPLICATION NUMBER: US/10/103.327

; CURRENT FILING DATE: 2002-03-20

; PRIOR APPLICATION NUMBER: US/09/993,059

; PRIOR FILING DATE: 2001-11-13

; NUMBER OF SEQ ID NOS: 37

; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 10

; LENGTH: 431

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-103-327-10

Query Match 99.4%; Score 2308; DB 15; Length 431;
 Best Local Similarity 98.1%; Pred. No. 2.4e-228;
 Matches 423; Conservative 0; Mismatches 0; Indels 8; Gaps 1;

QY 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFERNCLDCCQEEP 60
 DB 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFERNCLDCCQEEP 60
 QY 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGVDLKFDGCYCDLSLENL 180
 DB 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGVDLKFDGCYCDLSLENL 180
 QY 181 ADGKXMSALNRTGRSIVYSCWPLVYMPFQKPNYTEIROYCNHWRNFADIDDSWKSIIK 240
 DB 181 ADGKXMSALNRTGRSIVYSCWPLVYMPFQKPNYTEIROYCNHWRNFADIDDSWKSIIK 240

QY 241 SILDWTSFNQRIIVDVAGPGWNPDMVLVGNFGLSNQOQVTOMALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSFNQRIIVDVAGPGWNPDMVLVGNFGLSNQOQVTOMALWAIMAAPLFMSNDL 300
 QY 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQIG 360
 DB 301 RHISPOAKALLQDKDVIAINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQIG 360
 QY 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQ---- 416
 DB 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQOLENT 420
 QY 417 ----LSEKDEL 423
 DB 421 MQMSLSEKDEL 431

RESULT 7

US-10-602-219-6

; Sequence 6, Application US/10602219

; Publication No. US20040016021A1

; GENERAL INFORMATION:

; APPLICANT: Large Scale Biology Corporation

; APPLICANT: Turpen, Thomas H.

; APPLICANT: Pogue, Gregory P.

; APPLICANT: Erwin, Robert L.

; APPLICANT: Grill, Laurence K.

; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRE

; FILE REFERENCE: LSBC-0087-CP09B

; CURRENT APPLICATION NUMBER: US/10/602,219

; CURRENT FILING DATE: 2003-06-23

; PRIOR APPLICATION NUMBER: 09/993,059

; PRIOR FILING DATE: 2001-11-13

; PRIOR APPLICATION NUMBER: 09/626,127

; PRIOR FILING DATE: 2000-07-26

; PRIOR APPLICATION NUMBER: 09/316,572

; PRIOR FILING DATE: 1999-05-21

; PRIOR APPLICATION NUMBER: 08/324,003

; PRIOR FILING DATE: 1994-10-14

; PRIOR APPLICATION NUMBER: 08/176,414

; PRIOR FILING DATE: 1993-12-29

; PRIOR APPLICATION NUMBER: 07/997,733

; PRIOR FILING DATE: 1992-12-30

; PRIOR APPLICATION NUMBER: 08/184,237

; PRIOR FILING DATE: 1994-01-19

; PRIOR APPLICATION NUMBER: 07/923,692

; PRIOR FILING DATE: 1992-07-31

; PRIOR APPLICATION NUMBER: 07/600,244

; PRIOR FILING DATE: 1990-10-22

; PRIOR APPLICATION NUMBER: 07/641,617

; PRIOR FILING DATE: 1991-01-16

; Remaining Prior Application data removed - See File Wrapper or PALM.

; NUMBER OF SEQ ID NOS: 32

; SOFTWARE: PatentIn version 3.2

; SEQ ID NO 6

; LENGTH: 435

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-602-219-6

Query Match 99.3%; Score 2306; DB 12; Length 435;
 Best Local Similarity 97.2%; Pred. No. 4e-228;
 Matches 423; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFERNCLDCCQEEP 60
 DB 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFERNCLDCCQEEP 60
 QY 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGVDLKFDGCYCDLSLENL 180

Db 121 ANYVHSGKLGKGIYADVGNKTCAGPFGSGFYDIDAQTFADGWVLLKFDGCYCDSLENL 180
Qy 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSNQVQVQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSNQVQVQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOAKALLQDKOVIATNQDPLGKQYQLROGDNFEVWERPLSGLAWAVAMINRQEG 360
Db 301 RHISPOAKALLQDKOVIATNQDPLGKQYQLROGDNFEVWERPLSGLAWAVAMINRQEG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEMTSRLRSHINPTGTVLLO--- 416
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEMTSRLRSHINPTGTVLLOLENT 420
Qy 417 -----LSEKDEL 423
Db 421 MQMSLKDLLSEKDEL 435
RESULT 8
US-10-103-327-6
; Sequence 6, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KIMAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT APPLICATION NUMBER: US/10103,327
; PRIOR FILING DATE: 2002-03-20
; PRIOR FILING DATE: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 435
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-6
Query Match 99.3%; Score 2306; DB 15; Length 435;
Best Local Similarity 97.2%; Pred. No. 4e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 12; Gaps 1;
Qy 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Db 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAMLSVSEGWKDAYEYLCIDDCWAPQDSEGRLOADPQRFPHGIRQL 120
Db 61 DSCISEKLFMEAMLSVSEGWKDAYEYLCIDDCWAPQDSEGRLOADPQRFPHGIRQL 120
Qy 121 ANYVHSGKLGKGIYADVGNKTCAGPFGSGFYDIDAQTFADGWVLLKFDGCYCDSLENL 180
Db 121 ANYVHSGKLGKGIYADVGNKTCAGPFGSGFYDIDAQTFADGWVLLKFDGCYCDSLENL 180
Qy 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSNQVQVQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSNQVQVQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOAKALLQDKOVIATNQDPLGKQYQLROGDNFEVWERPLSGLAWAVAMINRQEG 360
Db 301 RHISPOAKALLQDKOVIATNQDPLGKQYQLROGDNFEVWERPLSGLAWAVAMINRQEG 360

Db 301 RHISPOAKALLQDKOVIATNQDPLGKQYQLROGDNFEVWERPLSGLAWAVAMINRQEG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEMTSRLRSHINPTGTVLLO--- 416
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEMTSRLRSHINPTGTVLLOLENT 420
Qy 417 -----LSEKDEL 423
Db 421 MQMSLKDLLSEKDEL 435
RESULT 9
US-10-602-219-16
; Sequence 16, Application US/10602219
; Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 16
; LENGTH: 417
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-16
Query Match 98.8%; Score 2293; DB 12; Length 417;
Best Local Similarity 100.0%; Pred. No. 8.1e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Db 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAMLSVSEGWKDAYEYLCIDDCWAPQDSEGRLOADPQRFPHGIRQL 120
Db 61 DSCISEKLFMEAMLSVSEGWKDAYEYLCIDDCWAPQDSEGRLOADPQRFPHGIRQL 120
Qy 121 ANYVHSGKLGKGIYADVGNKTCAGPFGSGFYDIDAQTFADGWVLLKFDGCYCDSLENL 180
Db 121 ANYVHSGKLGKGIYADVGNKTCAGPFGSGFYDIDAQTFADGWVLLKFDGCYCDSLENL 180
Qy 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240

Qy 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Db 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417

RESULT 10

US-10-103-327-16
; Sequence 16, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KUNAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYOSOMAL ENZYMES IN
; TITLE OF INVENTION: PLANTS BY TRANSLIENT EXPRESSION
; FILE REFERENCE: 008010087CPUS06
; CURRENT APPLICATION NUMBER: US/10/103.327
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 16
; LENGTH: 417
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-16

Query Match 98.8%; Score 2293; DB 15; Length 417;
Best Local Similarity 100.0%; Pred. No. 8.1e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Db 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Qy 61 DSCISEKLFMEMAEIYVSEGWDAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Db 61 DSCISEKLFMEMAEIYVSEGWDAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGFPGSFGYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Db 121 ANYVHSGKLGLGIYADVGNKTCAGFPGSFGYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Qy 181 ADGYKMSLALNRTRGSIVVSCWPLVMPFPKPNYTEIRQYCNHWRNFADIDDSWKS 240
Db 181 ADGYKMSLALNRTRGSIVVSCWPLVMPFPKPNYTEIRQYCNHWRNFADIDDSWKS 240
Qy 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Db 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417

RESULT 11

US-10-602-219-12
; Sequence 12, Application US/10602219

Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYOSOMAL ENZYMES IN PLANTS BY TRANSLIENT EXPRE
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602.219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 12
; LENGTH: 421
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-12

Query Match 98.8%; Score 2293; DB 12; Length 421;
Best Local Similarity 100.0%; Pred. No. 8.2e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Db 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Qy 61 DSCISEKLFMEMAEIYVSEGWDAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Db 61 DSCISEKLFMEMAEIYVSEGWDAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGFPGSFGYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Db 121 ANYVHSGKLGLGIYADVGNKTCAGFPGSFGYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Qy 181 ADGYKMSLALNRTRGSIVVSCWPLVMPFPKPNYTEIRQYCNHWRNFADIDDSWKS 240
Db 181 ADGYKMSLALNRTRGSIVVSCWPLVMPFPKPNYTEIRQYCNHWRNFADIDDSWKS 240
Qy 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Db 241 SILDWTSGNRIIVDVAGPGGNDPDMVLVIGNFGLSWNNQVQTOMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKVDIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTLLQL 417

RESULT 12

US-10-103-327-12
; Sequence 12, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KIMAGAI, MOTO H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CFUS06
; CURRENT APPLICATION NUMBER: US/10/103,327
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 421
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-12

Query Match 98.8%; Score 2293; DB 15; Length 421;
Best Local Similarity 100.0%; Pred. No. 8.2e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCMNCDCQEEP	60
Db	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCMNCDCQEEP	60
Qy	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL	120
Db	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL	120
Qy	121	ANYVHSGKLGIGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDLSLENL	180
Db	121	ANYVHSGKLGIGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDLSLENL	180
Qy	181	ADGKXMSLALNRTGRSIVYSCENPLYMWPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Db	181	ADGKXMSLALNRTGRSIVYSCENPLYMWPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Qy	241	SILDWTSFNQERIYDVAGPGGNDPDLVIGNFGLSMNQVQTQMALWAIMAAPLFWMSNDL	300
Db	241	SILDWTSFNQERIYDVAGPGGNDPDLVIGNFGLSMNQVQTQMALWAIMAAPLFWMSNDL	300
Qy	301	RHISFOAKALLQDKVDVAINQDPLGKQGYQLRQDNPFWERPLSGLAWAVAMINRQSIG	360
Db	301	RHISFOAKALLQDKVDVAINQDPLGKQGYQLRQDNPFWERPLSGLAWAVAMINRQSIG	360
Qy	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL	417
Db	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL	417

RESULT 13

US-10-131-410-106
; Sequence 106, Application US/10131410
; Publication No. US20030235915A1
; GENERAL INFORMATION:
; APPLICANT: SPECHT, THOMAS
; APPLICANT: HINZMANN, BERND
; APPLICANT: SCHMITT, ARMIN
; APPLICANT: PILARSKY, CHRISTIAN
; APPLICANT: DAHL, EDGAR
; TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM TISSUE OF BREAST
; FILE REFERENCE: SCH-1763
; CURRENT APPLICATION NUMBER: US/10/131,410
; CURRENT FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: 09/646,673

; PRIOR FILING DATE: 2000-09-20
; PRIOR APPLICATION NUMBER: PCT/DE99/00908
; PRIOR FILING DATE: 1999-03-19
; NUMBER OF SEQ ID NOS: 202
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 106
; LENGTH: 478
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-131-410-106

Qy	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCMNCDCQEEP	60
Db	50	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCMNCDCQEEP	109
Qy	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL	120
Db	110	DSCISEKLFMEAEIWMVSEGWKADGYEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL	169
Qy	121	ANYVHSGKLGIGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDLSLENL	180
Db	170	ANYVHSGKLGIGIYADVGNKTCAGPFGSGYGYDIDAQTFADGWVLLKFDGCGYCDLSLENL	229
Qy	181	ADGKXMSLALNRTGRSIVYSCENPLYMWPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Db	230	ADGKXMSLALNRTGRSIVYSCENPLYMWPKPNYTEIROYCNHWRNFADIDDSWKSIX	289
Qy	241	SILDWTSFNQERIYDVAGPGGNDPDLVIGNFGLSMNQVQTQMALWAIMAAPLFWMSNDL	300
Db	290	SILDWTSFNQERIYDVAGPGGNDPDLVIGNFGLSMNQVQTQMALWAIMAAPLFWMSNDL	349
Qy	301	RHISFOAKALLQDKVDVAINQDPLGKQGYQLRQDNPFWERPLSGLAWAVAMINRQSIG	360
Db	350	RHISFOAKALLQDKVDVAINQDPLGKQGYQLRQDNPFWERPLSGLAWAVAMINRQSIG	409
Qy	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL	417
Db	410	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL	466

RESULT 14

US-10-602-219-8
; Sequence 8, Application US/10602219
; Publication No. US2004001602A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: LSEC-0087-CF09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692


```
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 8
; LENGTH: 424
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-8

Query Match      98.5%; Score 2288; DB 12; Length 424;
Best Local Similarity 100.0%; Pred. No. 2.7e-226;
Matches 416; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 61
Db 1 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 60
Qy 62 SCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAFQDSEGRLOADPQRPFGIROLA 121
Db 61 SCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAFQDSEGRLOADPQRPFGIROLA 120
Qy 122 NYVHSKGLKGIYADVGNKTCAGPPGSGFYGYDIDAQTFADWGVLLKFDGCGYCDLENLA 181
Db 121 NYVHSKGLKGIYADVGNKTCAGPPGSGFYGYDIDAQTFADWGVLLKFDGCGYCDLENLA 180
Qy 182 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROQCNHWRNFPADIDDSWKSIS 241
Db 181 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROQCNHWRNFPADIDDSWKSIS 240
Qy 242 ILDMTSFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 301
Db 241 ILDMTSFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 300
Qy 302 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 361
Db 301 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 360
Qy 362 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQOL 417
Db 361 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQOL 416

RESULT 15
US-10-103-327-8
; Sequence 8, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: KUNAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 424
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-8

Query Match      98.5%; Score 2288; DB 15; Length 424;
Best Local Similarity 100.0%; Pred. No. 2.7e-226;
Matches 416; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 2 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 61
Db 1 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 60
Qy 62 SCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAFQDSEGRLOADPQRPFGIROLA 121
Db 61 SCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAFQDSEGRLOADPQRPFGIROLA 120
Qy 122 NYVHSKGLKGIYADVGNKTCAGPPGSGFYGYDIDAQTFADWGVLLKFDGCGYCDLENLA 181
Db 121 NYVHSKGLKGIYADVGNKTCAGPPGSGFYGYDIDAQTFADWGVLLKFDGCGYCDLENLA 180
Qy 182 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROQCNHWRNFPADIDDSWKSIS 241
Db 181 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROQCNHWRNFPADIDDSWKSIS 240
Qy 242 ILDMTSFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 301
Db 241 ILDMTSFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 300
Qy 302 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 361
Db 301 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 360
Qy 362 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQOL 417
Db 361 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQOL 416
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Job time : 42 secs